

Independent claims 1, 8, and 12 relate to devices and methods for controlling a system, including, inter alia, a priority manager for (or step for) continuously modifying the respective corresponding priority value of each of at least one of the activatable modules individually to increase or decrease the respective corresponding priority value relative to the priority value of another of the activatable modules.

The Rishcar reference purports to relate to a real-time control system that "permits a dynamic scheduling of mixed trigger type tasks, both those that occur periodically on a regular basis and those that can occur at any time based on an event occurrence." (Rischar, Col. 12, lines 4 to 7). As shown in Figure 5, the tasks are entered in a task scheduling table 88, which records the task type (e.g., PERIODIC or EVENT), a trigger condition (e.g., every 100 ms), a watchdog time value (e.g., 5 ms), and an assigned priority. (See Rischar, Col. 7, lines 40 to 43). The periodic tasks are also entered in an occurrence queue 104 (shown in Figure 6) and linked to an initiation time (See Rischar, Col. 9, lines 25 to 31) so that when the initiation time for the periodic task is reached, the task is transferred to a ready list 120 shown in Figure 8. (See Rishcar, lines 41 to 42). Event-triggered tasks are placed directly in the ready list 120 when the triggering event occurs. (Rischar, lines 43 to 46).

For each task entered in the ready list 120, a corresponding watchdog time is entered in the occurrence queue 104 so that if the associated first program as listed in the task scheduling table 88 fails to execute within the time specified, an appropriate fault treatment may be implemented. (See Rischar, Col. 9, lines 47 to 55, and Col. 10, lines 18 to 23). In column 11, beginning with line 52, the Rischar reference describes how the control system processes the sequence of tasks with the aid of the ready list 120. In particular, the Rischar control system processes the task having the highest priority in the ready list 120, independently of whether it is a periodic task or an event-

triggered task. However, there is no mention or suggestion that the priorities of the tasks pending processing are modified in any way.

The Office Action cites Rischar, column 10, lines 7 to 11, and column 11, lines 10 to 13 to support the contention that Rischar discloses a priority manager modifying the corresponding priority value of at least one of the modules. However, Applicants respectfully disagree and submit that the passages cited by the Office Action do not disclose anything in this respect. In particular, column 10, lines 7 through 11, merely make reference to Figures 5, 6, and 7a, and describe how a periodic task is moved from the occurrence queue 104 to the ready list 120. As explained above, however, this constitutes only a comparison with the time entered for the corresponding task in the occurrence queue 104 and has nothing to do with any priorities assigned to the task. Likewise, column 11, lines 10 through 13, merely describe that event-triggered tasks are entered in the ready list 120 upon occurrence of the corresponding trigger event, and that a corresponding watchdog time is entered in the occurrence queue 104. As previously discussed, the watchdog time is only used to check whether the task has indeed executed within the prescribed time. Accordingly, the passages cited by the Office Action neither teach nor suggest changing priority values and, therefore, the Rischar reference simply does not disclose a device for "continuously modifying the respective corresponding priority value of each of at least one of the activatable modules individually to one of increase and decrease the respective corresponding priority value relative to the priority value of another of the activatable modules," as recited in claims 1, 8, and 12.

For at least the foregoing reasons, Applicants respectfully submit that Rischar does not anticipate independent claims 1, 8, and 12. Furthermore, since claim 3 depends from claim 1, and since claim 9 depends from claim 8, and since claims 14, 17, and 18 ultimately depend from claim

12, it is respectfully submitted that Rischar does not anticipate claims 3, 9, 14, 17 and 18 for at least the same reasons. Accordingly, it is kindly requested that the rejection of claims 1, 3, 8, 9, 12, 14, 17, and 18 under 35 U.S.C. § 102(e) be withdrawn.

II. REJECTION OF CLAIMS 2, 4, 5, 6, 7, 10, 11, 13, 15, 16, 19 AND 20 UNDER 35 U.S.C. § 103(a) AS UNPATENTABLE OVER BERGSTROM IN VIEW OF YOUNT, KIRSTEIN, OR KEPHART

Claims 2, 4, 13, and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rischar in view of U.S. Patent No. 4,787,041 to Yount (hereinafter "Yount"); claims 5, 6, 10, 11, 19, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rischar in view of U.S. Patent No. 4,653,003 to Kirstein (hereinafter "Kirstein"); and claims 7 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rischar in view of U.S. Patent No. 5,563,452 to Kephart (hereinafter "Kephart"). Respectfully, Applicants traverse.

As stated above, the primary Rischar reference does not disclose each and every feature of independent claims 1, 8, and 12, from which claims 2, 4, 5, 6, 7, 10, 11, 13, 15, 16, 19, and 20 ultimately depend. Furthermore, any reading of Yount, Kirstein, and Kephart makes clear that these secondary references, whether considered individually or in combination with Rischar, fail to cure the critical deficiencies of Rischar as applied against independent claims 1, 8, and 12. Specifically, each of these secondary references fails to disclose "continuously modifying the respective corresponding priority value of each of at least one of the activatable modules individually to one of increase and decrease the respective corresponding priority value relative to the priority value of another of the activatable modules," as recited in independent claims 1, 8, and 12.

For at least the foregoing reasons, it is respectfully submitted that claims 2, 4, 5, 6, 7, 10, 11, 13,

15, 16, 19, and 20 are patentable over Rischar, Yount, Kirstein, and Kephart, whether these references are considered individually or in combination. Accordingly, it is kindly requested that the rejections of these claims under 35 U.S.C. § 103(a) be withdrawn.

IV. CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,
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